

**REMARKS**

Applicants wish to thank the Examiner for reviewing the present patent application.

I. Rejection Under 35 USC §103

The Examiner has rejected claims 1 and 4-9 under 35 USC §103 as being unpatentable over Mitchnick et al., U.S. Patent No. 5,441,726 (hereinafter, '726) in view of Galley, U.S. Patent No. 5,609,852 (hereinafter, '852) and Halls, U.S. Patent No. 6,267,949 (hereinafter, 949). In the rejection, the Examiner maintains, in summary, that the '726 reference discloses a creamy foundation composition that is prepared by mixing components in a manner suggested in column 13 of the patent at lines 7-28. Particularly, the Examiner relies on what is set forth in the '726 patent in the above defined column and lines and mentions that zinc oxide is dispersed in a solution of components 7-10 and heated to 75°C. The Examiner further mentions that components 1-6 (which contain 5% by wt. stearic acid) are mixed and heated to 80°C to form a solution which is then added to the solution containing zinc oxide to produce an emulsion. The Examiner finally states that the emulsion is cooled under stirring to 50°C and a final perfume ingredient is added.

Notwithstanding the above, the Examiner admits that the '726 reference does not expressly teach heating a mixture of zinc oxide particles and stearic acid to a temperature of about 80°C for about 5 to about 10 minutes and that the '726 reference does not expressly disclose the addition of zinc oxide in an amount of about 1% to about 4% by weight of the cosmetic composition.

Nevertheless, in an attempt to cure the vast deficiencies of the '726 reference, the Examiner relies on the '852 reference which merely describes a sunscreen composition having titanium dioxide particles that have a die lake precipitated onto their surface in a die lake-titanium dioxide ratio of between 10:90 and 80:20.

The '949 reference is mentioned in the rejection maintained but not commented on by the Examiner. The '949 reference merely discloses a sunscreen formulation having zinc oxide and at least one metal hydroxy stearate in a synergistically effective amount. In view of the above, the Examiner believes that the rejection made under 35 USC §103 is warranted and should be maintained.

Notwithstanding the Examiner's apparent position to the contrary, it is the Applicants' position that the presently claimed invention is patentably distinguishable from the above-described for at least the following reasons.

As already made of record, the present invention is directed to a process for incorporating zinc oxide particles in a cosmetic composition comprised of solid asymmetric particles, comprising:

- melting the solid asymmetric particles to form melted fatty acid;
- adding un-coated zinc oxide particles to the melted fatty acid to form a mixture of zinc oxide and fatty acid;
- heating the mixture to a temperature of less than about 80°C for about 5-10 minutes; and
- cooling the mixture to a temperature of about 50°C, thereby quenching any reaction between the zinc oxide and the fatty acid.

The invention of claim 1 is further defined by the dependent claims which claim, among other things, the zinc oxide particle size, that the solid asymmetric particles are comprised of stearic acid, that the solid asymmetric particles comprise about 10 to about 25% by weight of the composition, the specific heating temperature, and the conversion of the zinc oxide and fatty acid being controlled to a conversion of about 5% to about 10% of the zinc oxide.

As set forth in the present invention, zinc oxide is added to melted fatty acid. Moreover, zinc oxide is added to melted fatty acid leading to the formation of a zinc stearate shell on a zinc oxide nano particle. The formation of the shell inhibits further reactions and allows for excellent dispersion within the cosmetic composition.

In contrast, and as set forth in the '726 reference, titanium oxide, talc, coloring pigment, and zinc oxide rods are pulverized. The resulting pulverized mixture is then dispersed in a solution having purified water, antiseptic, triethanolamine, and sorbitol. The resulting dispersion is heated to 75°C. A subsequent mixture of stearic acid, lipophilic glycerol monostearate, cetostearyl alcohol, propylene glycol monolaureate, squalane, and olive oil is then made and heated to 80°C to form a solution. The two solutions are combined and stirred to form an emulsion which is cooled to 50°C.

Certainly, zinc oxide is not added to a fatty acid comprising component first but to aqueous components. When a second component comprising stearic acid is added, no controlled contact (if any contact at all) will be made between the zinc oxide and fatty acid. Moreover, it is not clear from the '726 reference what the temperature of the emulsion is after the aqueous components and oily components are combined. Furthermore, there is no teaching whatsoever in the '726 reference that even remotely

suggests the time required to heat the mixture having fatty acid and zinc oxide. Again, and as already made of record, the present invention is patentably distinguishable over the '726 reference since the claimed invention is directed to a method for preparing a cosmetic composition comprising solid asymmetric particles, the method having a step where a mixture of zinc oxide and fatty acid is heated to a temperature of less than 80°C and the heating time is between 5 and 10 minutes. The addition of zinc oxide is at an amount such that about 1 to about 4% by weight of the cosmetic composition prepared comprises zinc oxide. In fact, the composition made in the '726 reference is a creamy foundation, and such a composition would not be formed with the solid asymmetric particles defined according to the present invention.

In an attempt to cure the vast deficiencies of the '726 reference, the Examiner relies on the '852 reference which merely describes sunscreen having a dye lake precipitated onto its surface. The '949 reference is merely directed to a formulation of zinc oxide and at least one metal hydroxystearate in a synergistically effective amount. The sunscreen composition of the '949 reference is partly predicated on the unexpected discovery that when pigment grade zinc oxide is combined with magnesium aluminum hydroxystearate, the resulting sunscreen formulation does not retain the expected whiteness or pigmentation after application onto the skin. Secondly, the invention is partly predicated on the discovery that there appears to be synergistic enhancement of SBF rating provided by a sunscreen formulation containing zinc oxide and a metal hydroxy stearate. There is no teaching whatsoever in the '949 reference that even remotely suggests that solid asymmetric particles may be melted and combined with zinc oxide to thereby produce a mixture of zinc oxide and fatty acid.

In view of the above, it is clear that all the important and critical limitations set forth in the presently claimed invention are not found in the combination of references relied on by the Examiner. Therefore, it is clear that a *prima facie* case of obviousness has not been established and that the rejection made under 35 USC §103 is improper and must be withdrawn.

Applicants submit that all claims of record are now in condition for allowance. Reconsideration and favorable action are earnestly solicited.

In the event the Examiner has any questions concerning the present patent application, the Examiner is kindly invited to contact the undersigned at his or her convenience.

Respectfully submitted,



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